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ABSTRACT

In a study of the way adult basic education (ABE) students answer different kinds of questions about what they read, 221 students were asked to read ten passages during a ten-week period and to answer ten questions about each passage immediately after reading it. Each set of questions included three dealing with facts, three dealing with word meanings in context, and three requiring students to make inferences. Analysis of the results indicated that the strength of the students lay in answering questions about facts, indicating a need for ABE instructors to use questioning techniques that promote divergent thinking. Instructors should develop questions that require students to perform a number of operations, including interpreting, evaluating, solving problems, applying information, and showing creativity. The ability to answer such questions requires the possession of certain abilities on the part of students. (GW)

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Socrates in Adult Basic Education

OR

The Art of Questioning

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Socrates in Adult Basic Education
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The Art of Questioning

What would Socrates do if he would be still with us? Socrates would still go around and ask questions. Socrates would pose a problem, generate a hypothesis, ask questions, listen to the answers, ask more questions in order to obtain positive results. Through logic-probing dialogues Socrates foreshadowed what two thousand three hundred years later is to become educational practice. To ask questions whose purposes aim to guide to higher reading-thinking skills and to partake actively in discovering the process of knowing.

Questions lead from the passivity of the conformist mentality of producing right answers to the activity of the non-conformist mentality of seeking out possible answers. Questioning leads to inquiring. Inquisitive questioning leads to the process of self-functioning that sets the learner free from the pseudo-educational product of reproducing correctly textbook and teacher-told informations.

In the latter, instruction produces the narrowest of literal comprehension skills as reported by Guszak(2), Austin and Morrison (1) and Henry(3). In the former, instruction guides students from convergent to divergent thinking embedded in and permeated by genuine concepts, formal operational thought and/or symbolic representation as reproted by Vygotsky(7), Piaget(5:98) and Bruner (5:149).

While numerous studies investigated what kinds of questions were asked by elementary and secondary teachers and what kinds of answers were given by their respective classroom populations, literature in Adult Basic Education (ABE) appears to be void of investigative studies reporting on what kinds of questions lead to what kinds of reading-thinking skills.

To probe this lack of non-reported significance of questioning in ABE instruction, the following study was undertaken. Its purpose was to learn more about on what levels adult learners cognize and think, what kinds of questions are predominantly answered and based on the findings what kinds of recommendations may better assist ABE instructors in teaching the shifting of cognitive levels from recalling facts to interpreting thoughts and ideas.

The Study

Over a period of ten weeks two hundred twenty-one adult students in ABE classes were asked to read silently ten passages increasing in length and difficulty as reported by Taschow (10) in A Project Study of Action Research. The ten questions were sequential one leading into another and were composed of three

fact-, three vocabulary- and four inference questions. Thus the selection of questions represented three different cognitive tasks identified by Taba (9) as teachable aspects of thinking.

The Questions Asked

Fact questions asked to recall one or two informations stated in the text whose answers responded to what, when, where and who. Who was called the champion of the rights of the minority? (single word recall) or What were the workers on strike against? (two word recall - but not in sequential order and half marks for one correct answer).

Vocabulary questions asked to give meanings to a single word or a word phrase within the constraints of a sentence. What does the word seeking mean in the sentence "The labor movement is seeking wage increases of up to thirty per cent?"(one word meaning) or What is meant by the phrase the arbitrator must be as wary in the sentence "The arbitrator must be as wary as passing between the Scylla and Charybdis?" (phrase meaning).

Inference questions asked the readers to conjecture anticipatory thought, to supply a rationale, to require a choice and to render judgment. How do you think management will act in the future when consulting with labor representatives?(conjecturing anticipatory thought). Explain why the driver of the convertible has received a ticket from the highway patrol?(supplying a rationale). Who did the better job in replacing the blade on the grader, Bob or Paul?(requiring to make a choice). Why would you have liked or not liked to work with the Stranger?(rendering judgment).

Analysis and Synthesis of Questions and Responses

The ten silent reading passages each followed by ten questions allowed a possible total of 22,100 question-response performances. Table 1 shows distribution of possible and actual responses and how they relate to the three level questions.

Table 1: Distribution of responses and their relationships to the fact-, vocabulary- and inference questions in totals, sub-totals and percentages.

Responses	Totals	Fact Sub-T.	%	Vocabulary Sub-T.	%	Inference Sub-T.	%
Total possible	22,100	6,630	30	6,630	30	8,840	40
Total actual	18,250	5,902	32	5,473	30	6,875	38
Total unanswered	3,850	728	19	1,157	30	1,965	51
Total correct	12,802	4,654	36	3,905	31	4,243	33
Total incorrect	5,448	1,248	23	1,568	29	2,632	48

Analysis of the 12,802 questions and their correct answers showed a distribution of the three level question-response performances as presented in Table 2.

Table 2: Distribution of the 12,802 questions and correct responses in sub-totals and percentages.

Questions	Responses	Distributions Sub-T.	%	Sub-T.
Fact	single word recall	2,094	45	
	two word recall	2,560	55	4,654
Vocabulary	single word meaning	1,562	40	
	phrase meaning	2,343	60	3,905
Inference	anticipatory thought	1,581	37	
	rationale conclusions	758	18	
	making a choice	986	23	
	rendering judgment	918	22	4,243

To ascertain a more comprehensive perspective of question-response performances in this study, Table 3 compares distributions of sub-totals of correct answers with those of toal actual and total possible answers.

Table 3: Comparing fact-, vocabulary- and inference question-response performances in numbers and percentages of correct sub-totals with actual and possible sub-totals.

Question-Response	Correct Sub-T.	%	Actual Sub-T.	%	Possible Sub-T.	%
Fact	4,654	36	5,902	79	6,630	70
Vocabulary	3,905	31	5,473	71	6,630	59
Inference	4,243	33	6,875	62	8,840	48

Performance Outcome

Study of Tables 1 to 3 indicates that the strength of the adult readers lies in answering fact questions in general (Table 3) and of one and two recall facts in particular (Table 2). At least in this sample factual apprehension in the form of recall expresses itself at the lowest level of reading-thinking skills. Does this performance outcome evidence that ABE instruction emphasizes the narrowest level of literal comprehension? Are adult readers adept to a greater degree to memorize, recall and then regurgitate bits of informations than they are able to infer, integrate and evaluate thoughts and ideas? In the light of diminishing manual labor employment in a technological-oriented society, can ABE instruction afford to be remiss in teaching inferential comprehension leading to divergent thinking?

Lifting Reading-Thinking Skills

To induce adult learners to shift gears from lower level thinking to higher level thinking, inquisitive questioning is essential. Shifting gears depends upon the ABE instructor's professional awareness and subtleness that different questions ask for different purposes and that different purposes require different kinds of questions. If the purpose of a question is to define a word, then the purpose determines the kind of question to be asked. The purpose directs the covert mental process to the overt performance outcome of what the adult reader is to learn from the question.

Prepared for usage in ABE instruction follows a survey in Table 4 that presents keywords to identify purposes in questioning which are illustrated by applicable samples. Keywords and samples are adapted for ABE instruction from "Questioning Techniques" be Shipley, Cann, Hildebrand and Mitchell(6).

Table 4: Keywords for purpose questions and applicable samples to lift comprehension levels in teaching reading-thinking skills.

Keywords for Purpose Questions	Applicable Samples
to define	What is the meaning of the term 'sheltered workshop'?
to interpret	How does the temperature in this region affect the growth of vegetables?
to compare	How does apprentice training compare with Training-on-the-Job?
to evaluate	How did the training in life skills prepare you to cope with your present employment?

to organize	How can the increase of meat prices over one year be shown in a graph?
to solve problems	If the gasoline price goes up by five cents, how much more would it cost you to drive your car one hundred miles?
to apply informations	From what you have learned, what influences does heavy industry have on the lives of the people in this area?
to judge	On what basis should an adult be referred to additional upgrading programs?
to demonstrate difficulties	If the carburetor of this car is removed, how would you put it back?
to appreciate	How does Bill express his happiness of being employed?
to show creativity	What other usable things could be made from this piece of fabric?
to analyze critically	What is said in the expression "In today's business world, dog eat dog?"
to develop ideas toward change	In what ways may the construction of the northern pipeline affect the lives of the Indians?

Meeting Conditions to Answer

While different purposes require different questions, questions as suggested by Sanders and reported by Logan and Logan (4) presuppose different conditions to be met in answering. A recall question presupposes that adult learners have studied, stored and retrieved the exact answer. Without fulfilling this presupposition the question "What is the capital city of California?" cannot be answered correctly from memory. A reasoning question presupposes the ability to follow directions, to reason out the steps in solving an arithmetic proplem and to explain cause-effect relationship in proper sequence. Without mastering these conditions the question "What are the events leading to the Civil War?" cannot be answered.

An evaluation question supposes beforehand the knowing of how to think critically, weigh evidence and render judgment. Without applying this specific knowing answers to the question "What kind of work would you like to do, carpentry or plumbing?" express uncertainty. A creative question supposes beforehand that the learners are willing to exchange convergent thinking in favor of divergent thinking. Answers to creative questions presuppose abilities to research relevant might-be possibilities till is-realities are found. Without courage to seek solutions answering the question "If you had lived during the 1849 goldrush in California, what would have been your outlook on life?" turns into a guessing game.

Reaching Out

The preceding study examined what kinds of questions were predominantly answered by adult learners in ABE instruction. Accompanying discussions illustrated by applicable samples explained why and how to lift reading-thinking skills from mere recalling of factual informations to interpreting, inferring, generalizing and applying thought and ideas. What as stated by Taba (8:179) "acquisition of knowledge simultaneously becomes a method of inquiry and a method of thinking, ABE instruction comes closer to the Socratic method of inquisitive questioning. However, does not Socrates' difficulty to train Athenians to think bear some resemblances to that of our days?

Bibliography

1. Austin, M.C.and C. Morrison, The First R:The Havard Report on Reading in Elementary School.New York:MacMillan, 1964.

2. Guszak, F.J.,Teacher Questioning and Reading, The Reading Teacher, December 1967, 21,227-234.

3.Henry, J.,Reading for What, Teachers College Record, 65, 1963.

4. Logan, M.L. and V.G.Logan, Design for Creative Teaching, Toronto:McGraw-Hill, 1971,120-122.

5. Patterson, C.H.,Foundation for a Theory of Instruction and Educational Psychology, New York:Harper & Row, 1977.

6. Shipley, C.M. et al., A Synthesis of Teaching Methods,(2nd.ed.) New York:McGraw-Hill,1968,110-111.

7. Smith, B.E.,K.S.Goodman and R. Meredith, Language and Thinking in School,(2nd ed.) New York:Holt, Rinehart and Winston, 1976,145-147.

8. Taba, H.,Curriculum Development. Theory and Practice, New York: Harcourt Brace Jovanovich, 1962,179.

9. Taba, H.,The Teaching of Thinking, Elementary English,May 1965, 42, 534-542.

10. Taschow, H.G., Implementation of The Reading Project in ABE, A study of action research, Department of Continuing Education, Regina, Saskatchewan, 1976.